

**H.E. Lourdes Ortiz Yparraguirre and Sr. Dámaso Luna Corona,**  
**Co-facilitators of Habitat III**  
**P.O. Box 30030, GPO,**  
**Nairobi, 00100, Kenya**

**Wednesday 20 July, 2016**

### **Re: Inclusion of Health Priorities in the New Urban Agenda**

Dear Excellency Lourdes Ortiz Yparraguirre and Sr. Dámaso Luna Corona,

We, the undersigned organisations, wish to express our united support for the Draft New Urban Agenda. Sustainable urbanisation offers one of the greatest opportunities for the protection and promotion of the health of future generations, and we welcome the increased focus on health related issues in the draft.

Health is both an indicator of and a prerequisite for sustainable social and economic development. It is one of the greatest assets of sustainable societies, ensuring a strong workforce and enabling progress. Furthermore, many interventions to address health offer clear environmental co-benefits. While the provision of health services is one component to improving urban public health, an integrated approach across sectors will be crucial in reducing exposure to health risk factors, and therefore preventing avoidable disease and death. Strategic decisions made in sectors including education, transport, energy, agriculture and food, education, labour, and waste management impact on health and can accrue health benefits and savings, simultaneously advancing social, economic and environmental development. The impact of decisions in these areas on health, together with practical interventions and guidelines for implementation, are listed in the annexed table.

It is therefore critical that health impacts are assessed during both the development of urban policies and plans, and when monitoring their impact. In order for health to be addressed across sectors in the implementation of the New Urban Agenda, it will be crucial for health to be embedded to a still greater extent throughout the document, including one consolidating paragraph outlining the aligned priorities to address health within sustainable urbanisation. We support the proposals made by the expert group convened by the World Health Organization, and additionally suggest the complementary language below:

#### **Quito Declaration on Cities for All**

- **10b:** Add “healthy” after “safe”
- **10:** Add an additional point ‘d’ to read “Protect and promote health and well-being by facilitating physical activity, reducing air pollution (both ambient and household) and providing access to water, sanitation, and affordable nutritious food.”

#### **Quito Implementation Plan for the New Urban Agenda**

Include additional paragraph, at position 27: “We commit to investing in public health, and recognise health as both an indicator of and prerequisite for social and economic development. Health priorities are well aligned with those for sustainable urbanisation, and attention to public health will contribute to resilient urban societies. We commit to strategic decision-making across sectors that can accrue both public health and environmental benefits, and contribute to reducing health inequalities.”

- **20:** Add “health and well-being” after “social cohesion”
- **21:** Add “promoting health and well-being” after “discrimination and violence”
- **22:** Add “healthy” after “dignified”

- **31:** Add “local public markets” after “squares”; add “health and well-being” after “promote”
- **40:** Add “health and well-being” after “savings”
- **46:** Add “tobacco free” after “accessible”; add “health and” after “including”
- **47:** Add “physical inactivity” after “air pollution”
- **48:** Add “sport” after “cultural”
- **54:** Add “health and well-being and” after “improving the”
- **55:** Add “protect and promote human and planetary health” after “forms and dimensions”
- **57:** Add “health and” after “all people’s”
- **58:** Add “physical activity” after “improving”
- **68:** Add “including health services” after “institutions and services”
- **77:** Add “through ensuring the assessment of environmental, social, health and economic impacts prior to their implementation” after “factor them in”
- **95:** Delete “and” before “safe, inclusive”; add “and affordable nutritious food” after “public spaces”
- **99:** Add “the ‘safe system’ approach called for in the UN Decade of Action for Road Safety and” after “promote”; add “We will promote a safe and healthy journey to school for every child as a priority in line with UN Convention of the Rights of the Child” after “vulnerable situations”
- **100a:** Change “as well as” to “and”; add “, which both increase physical activity and decrease emissions” after “cycling”
- **109:** Change “hunger and malnutrition” to “hunger and malnutrition in all its forms, including overweight & obesity”
- **143:** Add “in environmental, social, health and economic terms” after “progress achieved”

As organisations working on health at the local, national, regional and global level, we pledge our commitment to support urban initiatives towards creation of healthy, inclusive and sustainable environments in which we live and work in decades to come. We sign this letter on behalf of a wider group of organisations who also support these recommendations, the full list of which can be accessed below.

Sincerely yours,



Ms Katie Dain  
Executive Director  
NCD Alliance



Mr José Luis Castro  
President and CEO  
Vital Strategies



Ms Kristie Daniel  
Director, Liveable Cities Programme  
HealthBridge Foundation of Canada



Mr Florian Lorenz  
Executive Director  
Smarter Than Car

**Full list of signatories:** [Accessible here](#)

**Cc:** Dr Joan Clos, Executive Director, UN-Habitat

**Annexe:** Opportunities to Protect and Promote Health in Sustainable Urbanisation

## Annexe: Opportunities to Protect and Promote Health in Sustainable Urbanisation

This annexe outlines different priority issues which can be addressed to improve health in sustainable cities. Implementation of the actions set out will accelerate progress across the social, economic and environmental pillars of sustainable development. There is a growing body of evidence linking population health to urban environments. These data support guidance for strategic decision making and monitoring of health impact in urban contexts.

Disease burden and urban context are noted for each issue, accompanied by proposed intervention areas with accompanying solutions, international guidelines and case studies. While this list is non-exhaustive, it is intended to demonstrate the rationale for addressing health as an integrated component of sustainable urbanisation, and to support implementation of commitments agreed in the New Urban Agenda.

Intervention Area	Solutions	Case Studies and resource Guidelines
<b>AIR POLLUTION</b>		
<p>Ambient air pollution causes 3.1 million deaths annually<sup>i</sup>. These deaths occur due to stroke, ischaemic heart disease, and respiratory diseases including COPD and lung cancer, and additionally other cancers. Ambient air pollution is also closely linked to climate change, which poses additional risks to food security and heat exposure. Given the high concentration of industry, transport, and buildings in urban areas, levels of ambient air pollution are significantly higher than in rural areas. Indoor air pollution causes 2.9<sup>i</sup> million deaths annually. Emissions from unimproved cookstoves and unclean fuels are leading factors for this, and ultimately further contribute to ambient air pollution. Despite being located in close proximity to areas with reliable supplies of clean energy, informal settlements are often cut off from such resources, leaving their inhabitants vulnerable to the risks of indoor air pollution.</p>		
<p><b>Energy sources:</b> In the USA, the aggregate national economic impact associated with health impacts of fossil fuels is between \$361.7 and \$886.5 billion, or between 2.5 percent and 6 percent of gross domestic product (GDP)<sup>ii</sup>. In China in 1995, an estimated 178,000 people in major cities suffered premature deaths due to air pollution and 7.4 million work-years were lost to health damages<sup>iii</sup>. It is essential for health and economic progress to transition from fossil fuels to renewable energy sources.</p>	<ul style="list-style-type: none"> <li>• End government subsidies of fossil fuels, and furthermore reinvest funds in renewable energy. Oil subsidies in Africa alone total USD 50 billion annually<sup>iv</sup>.</li> <li>• Prioritise research and development for renewable energy technologies</li> <li>• Enforce carbon taxes (e.g. for large businesses)</li> </ul>	<ul style="list-style-type: none"> <li>• In China, a tax of 17 Yuan (2.5 USD) per tonne of carbon is projected to lead to a 5% reduction in carbon emissions, with a 4% reduction in premature deaths.<sup>v</sup></li> </ul>
<p><b>Motorised transport:</b> In the USA in 2005, the vehicle sector produced \$56 billion in health and other non-climate-change damages, with \$36 billion from light-duty vehicles and \$20 billion from heavy-duty vehicles<sup>vi</sup>.</p>	<ul style="list-style-type: none"> <li>• Reduce sulphur levels in fuel to below 50ppm</li> <li>• Legislate for particulate filters on vehicles</li> <li>• Improve vehicle fuel economy</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Resource:</b> Global Fuel Economy Initiative (GFEI) targets</li> </ul>
<p><b>Public transport:</b> Public transport reduces outdoor air pollution, congestion, and noise. (Active transport such as walking and cycling has additional benefit and is described below). Public transport which is convenient, accessible and safe will be used widely and generate returns on investment.</p>	<ul style="list-style-type: none"> <li>• Create designated tramways or bus lanes, allowing buses to bypass congestion and making journey time faster than by car</li> <li>• Invest in public transport modes which are reliant on green energy</li> <li>• Research common commuter routes and invest in high-speed train services to cover them</li> <li>• Apply charges for car drivers in central city areas, such as the 'congestion charge' reducing congestion from private vehicles and reducing journey time by public transport. Funds raised can be reinvested in public transport.</li> </ul>	<ul style="list-style-type: none"> <li>• Electric buses were introduced in Chicago in 2014. Operating one electric bus is equivalent to removing 276 cars from the road, and contributes USD 300,000 savings in fuel costs together with 660,000 USD savings in health costs<sup>vii</sup>.</li> <li>• London operates a congestion charge, whereby motorists pay to enter central London during working hours. Car journeys in the charging zone have fallen by a quarter, air pollution levels have decreased, and 1,888 years of life among the city's 7 million residents were saved in the first 5 year.<sup>viii</sup></li> </ul>

<p><b>Household fuels:</b> Access to clean fuels and improved cookstoves is key in countries where large proportions of the population, notably informal settlements, are reliant on solid fuels for cooking, heating and lighting. Traditional stoves and fuels cause up to 25% of black carbon emissions, and 123 billion USD in annual costs to health, environment, and economies in the developing world are due to the use of solid fuels for cooking<sup>ix</sup>. Scaling up clean cooking offers important health and climate co-benefits.</p>	<ul style="list-style-type: none"> <li>• Alternative fuels: switching from solid fuels (biomass, coal) to cleaner and more efficient fuels and energy technologies such as liquid petroleum gas (LPG), biogas, electricity and solar power can offer the greatest reductions in indoor air pollution.</li> <li>• Improved stoves: Where access to alternative fuels is limited and biomass remains the most practical fuel, pollution levels can be lowered significantly by using improved stoves. New hybrid 'gasifier' technologies are becoming available which burn fuel much more efficiently, with emissions close to those of modern fuels. This can improve fuel savings, thus having a positive environmental impact on and reducing the money and time needed to purchase or collect fuel.</li> <li>• Improved home ventilation: This can be achieved through chimneys, smoke hoods (with flues), and enlarged or repositioned windows (cooking windows).</li> <li>• User behaviour: Drying fuel wood before use improves combustion and decreases smoke production. Keeping young children away from smoke reduces exposure of this most vulnerable age group to health-damaging pollutants.</li> <li>• Some of the above changes require changes in urban policies, while others can be achieved through community education.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Resource:</b> Ingredients for Sustainable Cookstove Interventions Lessons Learned from the Indian National Programme for Improved Cookstoves (NPIC) (<a href="#">here</a>)</li> <li>• <b>Resource:</b> World Health Organization Interventions to reduce indoor air pollution (<a href="#">here</a>)</li> </ul>
---	---	---

<b>PHYSICAL INACTIVITY</b>		
<p>Physical inactivity causes 2.2 million deaths annually<sup>i</sup>. Contributing factors to physical inactivity in urban areas include high proportion of office jobs leading to low occupational physical inactivity, and sedentary lifestyles which result from long hours spent working and commuting leaving little remaining time for recreational physical activity. In 2006–07, physical inactivity cost the NHS in the UK £0.9 billion<sup>x</sup>. Urban design can promote walking: people are physically active for up to 1.5 hours more per week in activity-friendly neighbourhoods<sup>xi</sup>.</p>		
<p><b>Parks and green space:</b> Green spaces encourage physical activity from an early age, and also promote social cohesion<sup>xii,xiii,xiv</sup>. Unequal distribution and quality of green/recreational space according to socio economic status contributes to urban health inequity<sup>xv</sup>.</p>	<ul style="list-style-type: none"> <li>• Protect and maintain existing parks by setting aside areas of land in newly developed areas or which become available after demolition of a building for example</li> <li>• Ensure quality and accessibility of parks – they should be safe and enjoyable environments for women, children, people with disabilities, older people, and other vulnerable populations in particular. Paths through parks should be well lit at dusk and should have smooth surfaces for people with reduced mobility.</li> </ul>	<ul style="list-style-type: none"> <li>• A study for the UK National Ecosystem Assessment estimated the physical and mental health effects in terms of the economic impact of quality-adjusted-life years associated with UK green space. Physical exercise (+3 hours of vigorous activity per week) generates £12–£39. A view of green space from home (versus no view) saves £135–£452 in health costs<sup>xvi</sup>.</li> <li>• Increasing access to parks and open spaces could reduce costs to the UK National Health Service of treating obesity by more than £2 billion.<sup>xvii</sup></li> </ul>
<p><b>Active transport:</b> Walking and cycling improve rates of physical activity and are also associated with minimal polluting emissions<sup>xviii,xix,xx</sup>. Pedestrians and cyclists should be prioritised in urban planning, increasing investments in safe infrastructure for non-motorised transport to encourage active, low carbon, mobility<sup>xxi</sup>.</p>	<ul style="list-style-type: none"> <li>• Incorporate wide sidewalks and cycle lanes into street design.</li> <li>• Improve safety by providing pedestrian crossings and streetlights – the latter creates a safer environment for women in particular. Also see section on road injuries.</li> <li>• Plant trees and bushes to increase visual appeal of streets and sidewalks.</li> <li>• Plan cycling networks which provide more direct routes than vehicular roads, e.g. across green spaces, and away from motorised traffic.</li> <li>• City bike schemes with shared bicycles for public use are convenient and have been successfully implemented in cities across multiple regions<sup>xxii</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>• Bogota's 'Ciclovía', where 120km of road is car-free every Sunday, allows people to walk, cycle, and otherwise exercise safely. Women participating regularly in the Ciclovía are seven times more likely to be physically active.<sup>xxiii</sup></li> </ul>

## NUTRITION

Suboptimal diets in terms of both undernutrition and overnutrition account for 11.3 million deaths annually<sup>i</sup>. Urban environments and growing urban populations pose enormous challenges regarding food availability, transport, storage, and preparation. These issues have implications for both undernutrition and overnutrition with outcomes including undernutrition due to food scarcity, and overconsumption of unhealthy processed foods. Insufficient access to nutritious, affordable foods causes health and developmental problems, widens social inequalities and entrenches poverty across generations. In 2006–07, poor diet-related ill health cost the NHS in the UK £5.8 billion<sup>x</sup>. There is great potential for integrated efforts that address the combined challenges of urbanisation, environmental degradation, and nutrition-related health challenges.

<p><b>Agricultural Produce:</b> Worldwide, local markets are being replaced by supermarkets and commercial centres in urban areas. In developing countries, these typically offer a reduced selection of vegetables and fruit but a wide variety of processed and sweetened foodstuffs. Supporting agriculture for food security benefits health. In optimising agricultural practices, it is furthermore essential to take into account the effects of agricultural practices on climate change, with land-use conversion and soil cultivation estimated that they are responsible for about one-third of greenhouse gas emissions<sup>xxiv</sup> - the world's cultivated soils have lost 50-70 percent of their original carbon stock, much of which has oxidized upon exposure to air to become CO<sub>2</sub><sup>xxv</sup>. There are 2,500 billion tons of carbon in soil, compared with 800 billion tons in the atmosphere and 560 billion tons in plant and animal life<sup>xxvi</sup>.</p>	<ul style="list-style-type: none"> <li>• Encourage local food production by enhancing linkages between peri-urban food producers and urban consumers to help ensure city-dwellers have access to healthy foods.</li> <li>• Protect local public markets ensure access to healthy, fresh and affordable foods, and additionally provide employment opportunities in many regions, particularly for women.</li> <li>• Invest in research into crops and agricultural techniques which are resilient to climate change, thus preserving nutritious food produce</li> <li>• Promote soil carbon sequestration practices to lower atmospheric concentrations of carbon dioxide. Conservation tillage, cover cropping, and crop rotation are three ways to improve carbon sequestration.</li> </ul>	<ul style="list-style-type: none"> <li>• AeroFarms offer one possible solution to address the global food crisis. AeroFarm uses an indoor vertical farming system to grow local, safe and healthy food in a more sustainable way. Using aeroponics and re-circulating nutrient mist, AeroFarms consume 95% less water than traditional and comparable soil-based agriculture and less than 3% of the land requirements. Repurposing empty warehouses close to urban centres, AeroFarms create new jobs and boost urban economies, reduce food miles from farm to plate and bolster local food security. The AeroFarms system is a closed-loop system that produces year-round, high quality production, with better yields. The farming approach grows produce with no pesticides, removing their negative impact on local ecosystems and human health.</li> <li>• <b>Resource</b> (including above case study and other solutions): 'EAT in Sustania', EAT and Sustania 2015</li> </ul>
<p><b>Fast Food:</b> In addition to generally being much more common in urban areas, fast food outlets can often be found very close to schools, and fast food options served in canteens, which encourages unhealthy dietary habits in children. Fast food consumption in the adult population increases due to the long working hours of city workers, and the greater participation of women in the workforce rather than spending time at home preparing meals.</p>	<ul style="list-style-type: none"> <li>• Ban fast food chains opening near schools</li> <li>• Provide incentives for chains which consider healthier options; implement a sugar/fat tax levied on those who do not</li> <li>• Promote cooperation between schools and local farmers to ensure prominence of fresh produce in school meals.</li> </ul>	<ul style="list-style-type: none"> <li>• Brazil's National School Meals Program seeks to provide nutritious meals for 45 million school children, and requires 30 percent of food served in schools to be locally sourced from family farmers. Through this initiative, 83 percent of public schools in Brazil receive locally produced food, improving childhood nutrition through consumption of fruit and vegetables in place of processed foods, minimising emissions from food transport and additionally supporting local farmers.<sup>xxvii</sup></li> </ul>

## ROAD INJURIES

Road crashes kill 1.25 million people per year, and injure up to 50 million more, with many incurring a disability as a result of their injury<sup>xxviii</sup>. Given the high vehicle concentrations in cities, road traffic accidents occur at higher rates. 90% of road traffic fatalities occur in low and middle income countries, even though these countries have approximately half of the world's vehicles. Roads are a leading cause of death for all children over the age of five, with 500 child mortalities due to road accidents every day.<sup>xxix</sup> In particular, providing safe routes to school protects children and allows them, to obtain the education they need for future employment; safe mobility helps fight poverty and reduce inequality.

**Resource:** Unless otherwise cited, facts from this section are based on "Ten Strategies for Keeping Children Safe on the Road", World Health Organization 2015, which also provides valuable further information on successful interventions.

<p><b>Drivers and Passengers:</b></p>	<ul style="list-style-type: none"> <li>• Reduce legal blood alcohol concentration limits to address drink driving</li> <li>• Zero tolerance on driving under the influence of drugs</li> <li>• Zero tolerance on use of hand-held mobile telephones while driving</li> </ul>	<ul style="list-style-type: none"> <li>• In the USA, states that lowered legal blood alcohol limits from 0.10% to 0.08% in 1993 and 1994 experienced a 6% greater post-law decline in the proportion of drivers in fatal crashes with blood alcohol levels at 0.10% or higher<sup>xxx</sup>.</li> </ul>
---------------------------------------	--	---

	<ul style="list-style-type: none"> <li>• Wearing a seat-belt reduces risk of fatality among drivers and front-seat passengers by 45–50%</li> <li>• Fines and ‘penalty points’ on driving license can also be used to incentivise change.</li> </ul>	<ul style="list-style-type: none"> <li>• In Italy, enforcement of a penalty points system was followed by an increase in observed seat belt use of 51.8% among drivers; 42.3% among front passengers and of 120.7% among rear passengers. This led to an 18% reduction in fatalities and a 19% reduction in injuries<sup>xxxii</sup>.</li> </ul>
<b>Pedestrians and cyclists:</b>	<ul style="list-style-type: none"> <li>• Supervise children around roads</li> <li>• Enforce use of helmets at all times for cyclists motorcyclists, and promote use of cycle lights and reflective clothing at night for example with fines for noncompliance.</li> </ul>	<ul style="list-style-type: none"> <li>• In Hanoi, Vietnam, motorcycle helmet laws introduced in 2007 include a heavy fine for nonwearers that would cost a rider more than the price of a helmet. A public awareness campaign, the creation of headgear more suitable for tropical climates and free helmets for children were also key to success: the use of helmets increased from 40% to 95% of riders from 2007-2009. In just three months, according to data sampled from 20 hospitals around Hanoi, there was an 18% reduction in rates of death and serious injury – with 1,557 lives saved and 2,495 severe injuries prevented.<sup>xxxiii</sup></li> </ul>
<b>Roads:</b>	<ul style="list-style-type: none"> <li>• Implement physical measures such as traffic lights, roundabouts, speed humps, cross walks, over passes, median strips, and street lighting on busy roads</li> <li>• Separate different types of traffic and road users through mechanisms such as raised and wide pavements for pedestrians (especially on routes to school), dedicated lanes for pedestrians and cyclists, and median barriers to separate vehicle traffic moving in different directions</li> <li>• Create car-free zones to enhance the safety of pedestrians</li> <li>• Introduce school safety zones which include a package of speed reduction measures, car-free zones, safe dropoff and pick-up points, and crossing guards</li> <li>• Increase crossing times at signalized intersections that are close to schools</li> <li>• Designate play areas for children away from the road</li> <li>• Invest in safe public transport</li> <li>• Set and enforce speed limits appropriate to the function of each road – e.g. 30km/h in areas with high concentrations of pedestrians</li> <li>• Enforce speed limits through the use of automatic speed cameras</li> <li>• Build or modifying roads to include features that limit speed such as traffic lights, roundabouts, and speed humps</li> </ul>	<ul style="list-style-type: none"> <li>• 20 mile per hour zones (≈30 kilometer per hour) have been introduced around schools and residences in London, UK, along with infrastructure such as speed humps. This led to a 46% reduction in deaths among children aged 0–15 years and a 28% reduction in deaths among cyclists from 1987–2006.</li> <li>• <b>Resource:</b> International Road Assessment Programme can be used to monitor progress. Within this system, for each increase in star rating, road crashes are reduced by 50%.</li> </ul>
<b>Vehicles:</b>	<ul style="list-style-type: none"> <li>• Mandate the installation of energy-absorbing crumple zones and promote benefits of air bags to protect passengers inside a vehicle in the event of a road traffic crash</li> <li>• Redesign vehicle fronts to reduce harm on impact with pedestrians</li> <li>• Autonomous Emergency Braking can mitigate or even stop a crash</li> </ul>	

### OCCUPATIONAL HEALTH AND INDUSTRIAL WASTE IMPACTS

Cities are hubs of employment. People in employment spend approximately ¼ of their lives at work. Employers, and especially larger businesses, have the ability and responsibility to ensure workplaces protect and promote health. Occupational risks, including exposure to chemicals and occupational injuries, together account for 717,000 deaths annually<sup>1</sup>.

<p><b>Workplace wellness:</b> Workplace health schemes offer cross cutting opportunities to reduce exposure to many risk factors and to offer ample support and care.</p>	<ul style="list-style-type: none"> <li>• Employers can enforce smoke/alcohol free work places</li> <li>• Invest in shared bicycle schemes</li> <li>• Install secure cycle storage</li> <li>• Provide showers in the workplace to encourage lunchtime exercise or active commuting</li> <li>• Operate healthy canteens/vending machines (for people on shift work, particularly)</li> <li>• Encouraging walking meetings</li> <li>• Encourage use of stairs through positive messaging and improving appearance of stairwells</li> </ul>	<ul style="list-style-type: none"> <li>• One of the fastest growing workplace programmes across geographical regions, particularly in Asia, Africa and the Middle East, is the Cycle to Work scheme, whereby governments worldwide are encouraging physical activity by making it easier for people to walk and cycle and incentivise employers to promote active transport to work. The Cycle to Work scheme is a UK Government tax exemption initiative. Under the scheme, employers buy cycling equipment from suppliers approved by their scheme administrator and hire it to their employees. On average, employees who participate in such schemes save up to 40% of the total cost of a new bicycle. Employers make a national insurance saving (typically 13.8% of the salary sacrifice amount), providing a financial incentive to run the scheme, whilst promoting a positive behavioural change in their employees<sup>xxxiii</sup>.</li> <li>• <b>Resource:</b> NCD Alliance and Bupa: Realising the potential of workplaces to prevent and control NCDs, 2016</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Exposure to chemicals:</b> While exposure to chemicals is not exclusively occupational, this accounts for a high proportion of the burden, with 304,000 deaths from occupational exposure to chemicals in 2013<sup>1</sup>. Some 9% of the global disease burden due to lung cancer is attributed to occupational exposure to chemicals. Beyond occupational context alone, lead exposure, for example, is estimated to account for 143 000 deaths per year worldwide, with the highest burden in developing regions.<sup>xxxiv</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Legal frameworks that address the life cycle of chemicals and waste</li> <li>• Relevant enforcement and compliance mechanisms, with industry participation</li> <li>• Chemicals risk assessment and risk reduction</li> <li>• Development and promotion of environmentally sound and safer alternatives</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Resource:</b> SAICM/ICCM.4/6: Overall orientation and guidance for achieving the 2020 goal of sound management of chemicals</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Occupational injuries:</b> Workplace incidents cause an enormous amount of physical, financial and emotional hardship for individual workers and their families. Combined with insufficient workers' compensation benefits and inadequate medical insurance, workplace injuries and illnesses can not only cause physical pain and suffering but also loss of employment and wages, burdensome debt, inability to maintain a previous standard of living, loss of home ownership and even bankruptcy.</li> </ul>	<ul style="list-style-type: none"> <li>• Wide variation depending on field of work – personal protective equipment; regulations around shift work and minimum team size; training in heavy lifting.</li> </ul>	<ul style="list-style-type: none"> <li>• California, Hawaii and Washington all have mandatory injury and illness prevention programmes, and experienced workplace fatality rates as much as 31 percent below the national average in 2009.<sup>xxxv</sup></li> </ul>

### INFECTIOUS DISEASES

Although it is generally the case that vaccination, water, and sanitation services are more developed in urban areas, these services are often put under great strain in cities due to rapid urbanization that outpaces cities' coping ability, the extent and variation of demand for the services due to migration, and the huge populations of residents living in poverty. The density of cities also increases rate at which diseases are transmitted. In crowded urban environments, pathogens or water pollution originating any single individual has the potential to reach many others, placing residents across both disadvantaged and affluent communities at risk from disease.

<p><b>Airborne diseases:</b> As described above, high population densities in cities mean that airborne diseases, including but not limited to TB and MERS are easily transmitted. Cities are more likely than rural areas to have a stable electricity supply, access to refrigeration, sanitation and better supply-chain management – all critical for managing vaccines and other vital medicines</p>	<ul style="list-style-type: none"> <li>• Prepare for and subsequently respond to and contain infectious disease epidemics, both on behalf of the local urban population and also the neighbouring rural population</li> </ul>	
<p><b>Sexually transmitted diseases:</b> While urban:rural ratios of HIV prevalence varies across regions, cities pose different challenges to transmission prevention of HIV and other sexually transmitted infections, including the often higher rates of injected drug use and paid sex.<sup>xxxvi</sup> WHO data shows that urban women are particularly at risk of HIV, being at least 1.5 times more likely to have contracted HIV than either urban men or rural women. People living in informal settlements are particularly vulnerable, notably in urban South Africa and Nairobi where prevalence is at least twice as high as the formalized areas of the city.</p>	<ul style="list-style-type: none"> <li>• Provide access to condoms, anonymously as needed</li> <li>• Raise awareness of the issues and at hand and appropriate prevention</li> <li>• Strengthen access to sexual health services</li> <li>• Women and people living in slums need to be prioritised in community interventions</li> </ul>	
<p><b>Water and Sanitation:</b> Access to water and sanitation is essential for the protection of health and prevention of disease. Sanitation coverage for urban residents in the world's least developed regions remains very low at 47%, and particularly in sub-Saharan Africa where only 40% of its urban population has access to improved sanitation<sup>xxxvii</sup>. Continued lack of access to clean and safe water and sanitation puts people at risk of a wide range of diseases such as dysentery, cholera, typhoid, schistosomiasis, trachoma and intestinal worms. Poor management of these conditions in contexts where health systems are overstretched has exacerbated issues of antimicrobial resistance.</p>	<ul style="list-style-type: none"> <li>• Develop urban water supplies which provide all homes with water from a piped water supply which is boiled or filtered before drinking</li> <li>• Develop urban sewer systems which enable all homes to toilets with a sewer connection</li> <li>• Invest in composting toilets which require barely any water to function</li> <li>• Conserve water by minimising use</li> </ul>	<ul style="list-style-type: none"> <li>• Following a drought in Tuvalu, which threatened water and sanitation services, the Global Environment Facility supported Pacific Integrated Water Resources Management project (GEF Pacific IWRM), working to address these problems by installing composting toilets on the main island of Funafuti. As a result, sanitation has vastly improved, and families can grow their own food, making them less dependent on expensive and unhealthy food imports.</li> </ul>



### TOBACCO USE AND HARMFUL USE OF ALCOHOL

While the average prevalence of tobacco use and harmful use of alcohol is highest in rural areas. However, use of tobacco and alcohol, provides unique problems in cities where population densities are higher, and the use of these substances impacts on a higher number of individuals, for example in terms of exposure to second hand smoke, and risk of violence.

<p><b>Tobacco use:</b> 6.1 million deaths occur annually from tobacco use, of which 300,000 are due to second hand smoke exposure. Higher population density within cities increases exposure to second hand smoke. Second hand smoke exposure can have a particularly damaging effect on cardiovascular health.</p>	<ul style="list-style-type: none"> <li>• Enforce tobacco bans inside public buildings and inside public spaces, especially those frequented by children</li> <li>• Build on existing urban regulatory systems to ensure that cigarettes are taxed and not on display, to discourage purchase.</li> </ul>	<ul style="list-style-type: none"> <li>• Legislation prohibiting smoking in workplaces and enclosed public places was introduced in England in July 2007. In England, the legislation resulted in a statistically significant reduction (-2.4%) in the number of hospital admissions for myocardial infarction (MI). This amounted to 1,200 emergency admissions for MI in the year following the introduction of smokefree legislation<sup>xxxviii</sup>.</li> </ul>
<p><b>Harmful use of alcohol:</b> According to research by IOGT, 55% of adolescents in Sweden say that they stay away from public space because of alcohol. 21% of adolescents between the ages of 16 to 19 say that they only use alcohol because there is nothing else to do during their leisure time. In England and Wales in 2015, 70% of all violent incidents which took place public spaces were alcohol-related.<sup>xxxix</sup></p>	<ul style="list-style-type: none"> <li>• Ban drinking in public spaces</li> <li>• Provide alternative activities for adolescents at local level</li> </ul>	

### IMPLEMENTATION

In addition to the areas outlined above, there are specific ways in which overall implementation of the New Urban Agenda can be strengthened for the benefit of public health.

<p><b>Multisectoral action:</b> Health has its origin across multiple sectors, and the effects of ill health have consequences for the whole of society.</p>	<ul style="list-style-type: none"> <li>• Identify or develop guidelines for effective coordinated multisectoral action at the municipal level.</li> <li>• Establish local platforms for dialogue and collaboration across sectors</li> </ul>
<p><b>Health impact assessments:</b> HIAs can be used to indicate predicted or resulting success in implementation of urban policies and plans, and are a key step in achieving Health in All Policies.</p>	<ul style="list-style-type: none"> <li>• Develop a list of measurable health related indicators should be developed at global level for local and national monitoring, to include life expectancy</li> <li>• Conduct health impact assessments as standard prior to and during/following implementation of an urban policy or project</li> <li>• Policies or projects with a detrimental impact on health should not be implemented / continued</li> </ul>
<p><b>Financing:</b> Early investment in disease prevention is highly beneficial – prevention is economically advantageous as compared to treatment, and good overall health is associated with reduced cost to the overall economy.</p>	<ul style="list-style-type: none"> <li>• Identify priority areas where investing in disease prevention is cost-effective with increased funds subsequently available to fund services.</li> <li>• Implement innovative financing methods, such as ‘payment for success’ Social Impact Bonds, which will incentivise progress.</li> <li>• Enforce stringent local legislation to ensure enforcement of fiscal measures</li> </ul>

- 
- <sup>i</sup> Forouzanfar MH, Alexander L, Anderson HR, et al (2013): Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 386(10010):2287–2323
- <sup>ii</sup> Machol B & Rizk S (2013). Economic value of U.S. fossil fuel electricity health impacts. *Environment International* 52:75–80
- <sup>iii</sup> World Bank (1997). *Clear Water, Blue Skies: China's Environment in the New Century*. Washington, D.C.
- <sup>iv</sup> International Renewable Energy Agency (2013). *Africa's Renewable Future: The Path to Sustainable Growth*. Abu Dhabi, United Arab Emirates.
- <sup>v</sup> Garbaccio RF; Ho MS; and Jorgenson DW: The health benefits of controlling carbon emissions in China, Kennedy School of Government, Harvard University, 2000.
- <sup>vi</sup> National Academy of Sciences. *Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use*, The National Academies Press, Washington DC
- <sup>vii</sup> Chicago Transit Authority (2015). *Electric Bus*. Online: <http://www.transitchicago.com/electricbus/>
- <sup>viii</sup> Tonne C, Beevers S, Armstrong BG, et al. (2008). Air pollution and mortality benefits of the London Congestion Charge: spatial and socioeconomic inequalities. *Occupational and Environmental Medicine* 65(9):620-7
- <sup>ix</sup> Global Alliance for Clean Cookstoves, *Clean Cooking Critical to Protecting the Environment and Addressing Climate Change* Online: <http://cleancookstoves.org/binary-data/RESOURCE/file/000/000/416-1.pdf>
- <sup>x</sup> Scarborough P, Bhatnagar B, Wikramasinghe K, et al (2011): The economic burden of ill health due to diet, physical inactivity, smoking, alcohol and obesity in the UK: an update to 2006–07 NHS costs. *J Public Health*
- <sup>xi</sup> Sallis JF, E Cerin E Conway TL, et al (2016): Physical activity in relation to urban environments in 14 cities worldwide: a cross-sectional study. *Lancet*, Issue 462; 10034:2207–17
- <sup>xii</sup> Gascon M, Triguero-Mas M, Martinez B, et al. (2015): Residential green spaces and mortality: a systematic review. *Environment International* 86:60-67
- <sup>xiii</sup> Shanahan DF, Lin BB, Bush R et al (2015): Toward Improved Public Health Outcomes From Urban Nature. *American Journal of Public Health* 105(3):470-7
- <sup>xiv</sup> Wolf KL and Robbins AST (2015): Metro Nature, Environmental Health, and Economic Value. *Environmental Health Perspectives* 123:390–398
- <sup>xv</sup> Richardson EA, Mitchell R, Hertig T et al (2012): Green cities and health: a question of scale? *J Epidemiol Community Health* 66:160-165
- <sup>xvi</sup> Saraev V. Economic benefits of greenspace. Forestry Commission Research Report
- <sup>xvii</sup> The King's Fund (2013): *Improving the public's health: A resource for local authorities*. London, United Kingdom.
- <sup>xviii</sup> Mueller N, Rojas-Rueda D, Cole-Hunter T, et al. (2015): Health impact assessment of active transportation: A systematic review. *Preventive Medicine* 76:103-114
- <sup>xix</sup> Rojas-Rueda D, de Nazelle A, Tainio M, Nieuwenhuijsen MJ (2011): The health risks and benefits of cycling in urban environments compared with car use : health impact assessment study. *BMJ* 343:d4521
- <sup>xx</sup> Woodcock J, Edwards P, Tonne C, et al (2009): Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *Lancet* 374(9705):1930–1943
- <sup>xxi</sup> Nieuwenhuijsen MJ and Khreis H (2016): Car free cities: Pathway to healthy urban living. *Environment International* 94:251-262
- <sup>xxii</sup> Fishman E (2015) "Bikeshare: A Review of Recent Literature" *Transport Reviews* 36:1
- <sup>xxiii</sup> Gómez LF, Mateus JC, Cabrera GA (2004): Leisure-time physical activity among women in a neighbourhood in Bogota, Colombia: prevalence and socio-demographic correlates. *Cadernos de Saúde Pública* 20(4):1103-9.
- <sup>xxiv</sup> Food and Agricultural Organisation: What is Soil Carbon Sequestration? Online: <http://www.fao.org/nr/land/sustainable-land-management/soil-carbon-sequestration/en/>
- <sup>xxv</sup> Schwarz J: Soil as Carbon Storehouse: New Weapon in Climate Fight? *Yale Environment* 360, 2014 Online: [http://e360.yale.edu/feature/soil\\_as\\_carbon\\_storehouse\\_new\\_weapon\\_in\\_climate\\_fight/2744/](http://e360.yale.edu/feature/soil_as_carbon_storehouse_new_weapon_in_climate_fight/2744/)
- <sup>xxvi</sup> Ontl TA. & Schulte, LA (2012): Soil Carbon Storage. *Nature Education Knowledge* 3(10):35
- <sup>xxvii</sup> Cross L (2013). Brazil's Locally Sourced School Lunches. *Food Tank*. Online: <http://foodtank.com/news/2013/05/brazils-locally-sourced-school-lunches>
- <sup>xxviii</sup> World Health Organization: Factsheet 358, Road traffic injuries. Accessed online 19 July 2016 <http://www.who.int/mediacentre/factsheets/fs358/en/>
- <sup>xxix</sup> World Health Organization (2016): *Ten Strategies for Keeping Children Safe on the Road*.
- <sup>xxx</sup> Hingson R, Heeren T, Winter M (2000): Effects of recent 0.08% legal blood alcohol limits on fatal crash involvement. *Inj Prev* 6:109-114
- <sup>xxxi</sup> Zambon F, Fedeli U, Visentin C (2007): Evidence-based policy on road safety: the effect of the demerit points system on seat belt use and health outcomes. *Epidemiol Community Health* 61:877-881
- <sup>xxxii</sup> Bloomberg Philanthropies: *Road Safety: Helping to Save Lives Through Proven Interventions that Reduce Road Traffic*. Accessed online 20 July <http://www.bloomberg.org/program/public-health/road-safety/>
- <sup>xxxiii</sup> Cycle to Work Alliance (2015). *Employer FAQs*. [www.cycletoworkalliance.org.uk](http://www.cycletoworkalliance.org.uk).
- <sup>xxxiv</sup> World Health Organization A69/19: *Role of the health sector in the sound management of chemicals*, WHO, 2016
- <sup>xxxv</sup> Occupational Safety and Health Administration (2012): *Injury and Illness Prevention Programs*, White Paper
- <sup>xxxvi</sup> World Health Organization (2016): *Global Report on Urban Health*, Geneva, Switzerland.
- <sup>xxxvii</sup> United Nations Children's Fund and World Health Organization (2015): *Progress on sanitation and drinking water: 2015 update and MDG assessment*. Geneva, Switzerland.
- <sup>xxxviii</sup> Bauld L (2011): *The Impact of Smoke Free Legislation in England: Evidence Review*. University of Bath.
- <sup>xxxix</sup> IOGT (2016): *Alcohol Policy for the New Urban Agenda*